



Winston H. Hickox
Agency Secretary

Air Resources Board

Alan C. Lloyd, Ph.D.
Chairman

1001 I Street • P.O. Box 2815 • Sacramento, California 95812 • www.arb.ca.gov



Gray Davis
Governor

April 29, 2002

Dear Sir or Madam:

This letter is to invite you to participate in a meeting of the Incentives Subgroup of the Maritime Air Quality Technical Working Group (Maritime Working Group). The Incentives Subgroup was formed to discuss economic incentives and other programs to encourage oceangoing ships to reduce their emissions in California Coastal Waters. Incentive programs developed in this forum are expected to be developed collaboratively with many different stakeholders, including the United States Environmental Protection Agency, local air pollution control districts, port authorities, shipping companies, and other interested parties. As discussed at the last Maritime Working Group meeting, we would like to focus our initial efforts on a demonstration project under which one or two cargo ships that regularly travel along the Santa Barbara coastline would be retrofitted to reduce their nitrogen oxide emissions. The meeting will be held at the following time and location:

Date: May 23, 2002
Time: 10:00 AM - 1:00 PM
Location: Phillip Burton Federal Building
450 Golden Gate Street (at Larkin Street)
California Room, Second Floor
San Francisco, CA 94102

At this meeting, we would like to engage in informal "round-table" discussions with shipping companies, and other interested parties to better understand the shipping industry and the types of incentive programs that would appeal to the industry (particularly with reference to the demonstration project along Santa Barbara's coastline). To facilitate the meeting, we have included discussion points to prepare participants for some of the topics to be covered.

All interested parties are welcome to attend this meeting, and we encourage shipping companies in particular to attend. It is not necessary to contact us to confirm your attendance, and if you did not receive this letter directly, but would like to be on the mailing list for future notification, please contact Mr. Paul Milkey, Technical Analysis Section, at pmilkey@arb.ca.gov or (916) 327-2957.

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Website: <http://www.arb.ca.gov>.

California Environmental Protection Agency

Sir or Madam
April 29, 2002
Page 2

This facility is accessible to persons with disabilities. If you need special accommodations to attend this meeting, please contact Ms. Linda Keifer at (916) 323-4327 by March 26, 2002. Persons with hearing or speech impairments can contact us by using our Telephone Device for the Deaf (TDD) at (916) 324-9431, or (800) 700-8326 for TDD calls from outside the Sacramento area.

We welcome your participation in this effort. If you have any questions regarding the meeting, please contact Ms. Peggy Taricco, Manager, Technical Analysis Section, at (916) 327-7213, or via e-mail at ptaricco@arb.ca.gov.

Sincerely,

/s/

Peter D. Venturini, Chief
Stationary Source Division

Enclosure

cc: Ms. Peggy Taricco, Manager
Technical Analysis Section
Stationary Source Division

Mr. Paul Milkey
Staff Air Pollution Specialist
Stationary Source Division

AGENDA

Incentives Subgroup

**May 23, 2002
10:00 AM – 1:00 PM
San Francisco, CA**

- I. Introductions
- II. Opening Remarks on Incentive Programs and the Demonstration Project along the Santa Barbara coastline – U.S. EPA
- III. Open Discussion (See Discussion Points) -- All
 - Understanding the Shipping Industry
 - Industry Perspective on Incentive Programs
 - Industry Perspective on Emission Control Options
- IV. Topics for Next Meeting

Discussion Points

Incentives Subgroup

**May 23, 2002
10:00 AM – 1:00 PM
San Francisco, CA**

I. Understanding the Shipping Industry

- How do you determine which flag your ship will fly under?
- What are your major expenses (fuel, port fees, etc.)?
- What type of fuel do you use and where do you refuel?
- How are your shipping routes determined?
- What makes our “frequent flyers” frequent flyers?
- How far in advance do you know that your ships will be operating on a specific transit?
- How often do you have to change routes or eliminate routes?
- How predictable is your business out into the future?
- Can you live with a five-year commitment to a specific route?
- How flexible are your ship’s main engines in burning cleaner fuels?
- How flexible are your ship’s auxiliary engines in burning cleaner fuels?

II. Industry Perspective on Incentive Programs

- What incentive programs might be most interesting to ship owner-operators in reducing ship emissions in California?
 - funding to implement retrofits
 - environmentally differentiated harbor fees
 - reduced rates on cleaner fuel
 - payments for running SCR or other controls based on emissions reduced
 - environmental awards or public recognition
- For ship owners and operators, who do you suggest we talk to about an incentives-based emissions reduction program?
- If a ship participating in a retrofit program needs to change routes, would having to pay back a prorated share of the retrofit installation cost make the program unacceptable?

III. Industry Perspective on Emission Control Options

- What might be the shipping industry's primary concerns about engine retrofits ?
 - Purchase and installation cost
 - Space required in engine room, or fuel and water tank volumes
 - Downtime for installation
 - Cost of operation
 - Potential fuel penalty
 - Reliability
- Please describe your experience (if any) or information you can share regarding emission control equipment or other strategies to reduce emissions, including:
 - Selective Catalytic Reduction (SCR)
 - Humid Air systems
 - Direct Water Injection
 - Fuel additives
 - Marine distillate diesel fuel or other cleaner fuels
 - Other low-NOx combustion technologies such as valve timing, compression ratio, delayed injection, nozzle design and exhaust gas recirculation
- What control technologies would you be most comfortable with on your ships
- What benefits do you see for your company in owning or operating a ship with lower emissions?